PATENT
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Reissue Application of:	(	
BILL L. DAVIS and JESSE S. WILLIAMSON	(	
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For Reissue of U. S. Patent 5,630,393	(	Group Art Unit:
Issued May 20, 1997	(	2854
Serial No. 08/515,097	(	
	(	Examiner:
Filing Date: May 20, 1999	(	S. Funk
	(	
Serial No: 09/315,796	(	
	(	
For: COMBINED LITHOGRAPHIC/	(	
FLEXOGRAPHIC PRINTING	(	
APPARATUS AND PROCESS	(	

THIRD SUPPLEMENTAL DECLARATION OF RAYMOND J. PRINCE

I, Raymond J. Prince, under penalties of perjury declare and state the following:

1. I am the same Raymond J. Prince who made declarations on or about May 19, 1999 submitted with the original application for reissue, and a supplemental declaration dated March 15, 2000, and a second supplemental declaration dated June 29, 2000. I reaffirm each of the statements made therein.

2. I have read U.S. Patent No. 5,638,752 ("the '752 patent") issued June 17, 1997 to Hartung, et al. of MAN-Roland Drucksmaschinen A.G. ("MAN-Roland") I noted that the '752 patent has an effective 1994 filing date and purports to have an April 3, 1993 German priority date. I have reviewed, again, the '363 patent to Davis, et al.

3. The '752 patent concentrates, starting at Col. 2, line 10 to Col. 3, line 32, Figs. 1-2 and Col. 3, line 54 to Col. 5, line 54, on the end-of-press double coater application as shown in Figs. 1-2. This configuration is used for many purposes, including the application of a waterbased coating and then a UV coating. Also, the '752 patent describes the use of a waterbased gold, and then overprinting the gold with UV coating. This last application is used in the printing of labels.

4. The only mention regarding the use of flexographic printing *prior* to the lithographic units in the '752 patent is an alternative or second embodiment, which starts at Col. 5, line 56. On the other hand, the '363 patent goes into great detail (teaching) why a printer would want to apply flexographic ink or coating prior to the offset lithographic units

as well as how to do it. The alternative '752 embodiment of the flexographic unit placed in front of the offset printing units has no clear reason given for doing this. Any general advantages are not pointed out, nor are the various types of work this technology would be used for. The '363 patent goes into great detail (teaching) why a printer would want to do this, as well as how to do it.

5. For the technology of the '752 patent to work, the flexographic coating/ink either waterbased or ultraviolet cured would have to be dried *prior* to a lithographic ink being printed on it, or in the case of a double coater, at the end of the press drying would have to occur between the two flexographic units, if two flexographic units are applied (suggestion in first embodiment at Col. 3, line 63). The '752 patent does not state or even mention in any part of the specification text or drawings Figs. 1-3 how one would solve the problem of trapping of the lithographic ink on top of a wet flexographic coating or wet flexographic ink. The '363 patent, on the other hand, clearly tells how this can be accomplished. If a press were configured as described in the '752 patent and as shown in Figs. 1-3, it would be, in my opinion, inoperable due to severe problems of trap, and the sheets would stick together in the press delivery. There is no teaching in the '752 patent of drying units, and such drying would have been necessary to practice the suggestion at Col. 3, line 63 for the first embodiment or for the second embodiment described starting at Col. 5, line 56. The '363 patent, on the other hand, clearly tells how drying can be accomplished. In the '363 Fig. 2, item 50 and Col. 4, line 52; Col. 4, line 62; Col. 6, line 43; Col. 7, lines 5, 29, 45 describe a high velocity hot air dryer.

6. The '752 patent does not teach perfecting, while the '363 patent clearly indicates perfecting and teaches the advantages. This is clearly pointed out in the many references in the '363 patent to continuous in-line process descriptions.

7. The ' 752 patent is a very general patent with no detailed mechanical description as to an "up front" flexographic unit. The '752 patent mentions in a second embodiment printing a flexographic ink or coating prior to a lithographic ink Col. 5, line 61 to line 63 as a system to apply zinc white (opaque) coatings – there is no teaching whatsoever of any reasons why the artisan or printer would want to do so. The '363 patent, on the other hand, teaches the following advantages: the printing of white at Col. 3, lines 40-46; colors that need a high film thickness at Col. 3, lines 47-52; printing "scratch and sniff" coatings at Col. 3, lines 53-56; metallic inks at Col. 3, lines 60-67.

8. The '752 patent does not expressly teach the use of an anilox (common terminology in flexography) roller. The teaching of application roller 21 at Col. 4, lines 11-14 having a "structural surface including small cups" is awkward, if not misleading if an anilox roller was intended. The '363 patent defines and expressly teaches the use of an anilox roller, Col. 1, lines 16-33; Col. 6, line 24; Col. 6, line 38; Col. 7, line 41; Col. 10, line 50, 65.

9. The '752 patent does not teach the use of flexographic plates. It does teach the use of a typographic plate or "form"(Col. 5, lines 32-36) that is "stretched". I am not at all sure what is meant by this type of plate. Typographic plates are not used in flexography, nor is the plate "stretched".

10. Looking at Col. 5, lines 48-67 and Col. 6 of the '752 patent up to claim 1, I see important deficiencies for an adequate teaching. Lines 48-55 of Col. 5 champion the idea of a double coater, triple tower, i.e. waterbased coater, in-line dryer, and then a UV coating or other coating. The types of coatings are not clearly specified. This "double coater" technique was developed for the label industry in an effort to improve productivity and eliminate bronzing of labels. Bronzing is expensive, but the look of the gold is very good. The double coater, triple tower press has seen some success in the label and folding carton industry, but not in the commercial field due to many technical issues. The '752 patent refers to two coaters – of which one is a flexographic unit in the emphasized embodiment -- at the end of a press. In this arrangement, gold pigment would be placed (mixed into a waterbased coating) and then applied to a sheet and top protective coating applied in "second lacquering unit 17". By reading this portion of the '752 patent, one of ordinary skill would have to do extensive experimentation, in my opinion, to make this work since it is clearly not pointed out in the '752 patent. As stated, the '752 patent does not indicate how the drying is to occur – nor does it give any guidance on coatings.

11. Lines 55-62, Col. 5 of the '752 patent, states for the second embodiment that "zinc-white coatings" can be applied ahead of the lithographic units. These coatings are used in metal decoration and in conjunction with printing process color on colored stocks. Why this is done is *not* stated in '752 patent nor is how that coating can be dried. If one of ordinary skill were to try this based on what is in the patent, a mess would occur on the press with all of the inks mixing together.

12. The '752 patent also suggests (Col. 3, lines 63-64) for the *second* embodiment that the "second lacquering unit 17" can be flexographic, but like the suggestion for the first embodiment at Col. 3, line 63, the details of this alternative are never explored.

13. Col. 6, lines 1-10 of the '752 patent try to encompass everything that they may have forgotten. Lines 1-4 refer to "particular embodiments" that are disclosed. In my opinion, only two embodiments were disclosed, the second starting at Col. 5, line 56 of Fig. 3. As stated above, the first embodiment of Col. 2, line 10 to Col. 5, line 55 and Figs. 1-2 is, in my opinion, *very* questionable as to its enablement, especially with respect to the alternative that both units 16 and 17 are flexographic. The second embodiment starting at Col. 5, line 56 of Fig. 3 is certainly not enabling, in my opinion. Once again, a person skilled in the art would have to spend a great deal of time and effort in the research lab to make the second embodiment work. Lines 6-10 of Col. 6 of the '752 patent again are most confusing discussing interspersed coating units that may help dry the sheet. A coating unit *coats* -- it does not *dry* a sheet.

14. Most importantly, if one of ordinary skill in the art were to start designing a machine in the spring of 1994 using the second or "up front" flexographic embodiment of the '752 patent process, a great deal of experimentation and work would be needed. The '752 patent "process" using a flexographic step "up front" would not work due to the fact that the coating or ink applied would not be dry prior to the next lithographic printing unit. For that reason, the disclosure at the bottom of Col. 5 and top of Col. 6 and Fig. 3 does not enable one of ordinary skill in the art to practice offset lithography using a flexographic step "up front".

15. As an expert in the printing arts, I have followed the improvements and advances in the printing presses for the last twenty-five years. I have followed the introduction of the various models of the MAN-Roland presses. The '752 patent appears to pertain to the second or third of the "Roland 700" series, this is one is the so-called "Plus Single Coater", having end-of-press double tower coaters, of which the one sold commercially had one anilox roller. The Roland 700 series was first launched in 1990 at DRUPA, but as I recall, without an anilox roller. The improvement with an anilox roller was first introduced into the marketplace, as I recall, in the fall of 1993 with the IPEX Exhibition in England using an end-of-press anilox roller. The "Double Coater" series (end-of-press) was launched at DRUPA in early May 1995 having a drier at end-of-press between *two* end-of-press flexographic anilox rollers. I do not recall any of the "Roland 700" series

advertisements between IPEX 1993 and January 1, 2000 offering the purchaser the alternative of placing the anilox roller "up front". I conclude from the failure of MAN-Roland to do this that either they did not appreciate the benefits as taught in the '363 patent or did not wish to do it.

The undersigned Declarant stated further that all statements made herein of Declarant's own knowledge are true, and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code.

Raymond J. Prince

Date: 9/11/2000